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FOREST INSECTS AND DISEASES IN KEJIMKUJIK NATIONAL PARK IN 1991.

An annual examination of our national parks for forest insect and disease conditions is conducted by Forest Insect and Disease Survey personnel. Some pest problems of note in Kejimkujik National Park in 1991 are described below:

GYPSY MOTH larvae are hairy caterpillars that can grow to 6 cm in length. Larvae are easily recognized by their five pairs of blue and six pairs of red dots along their backs. Gypsy moth have been found in the Park since 1983. In 1991, with the assistance of Park staff, 300 gypsy moth pheromone traps were placed in the Park, of which 283 traps were collected and 98% were positive. The average number of moths per trap was 12, an increase from seven in 1990. While no visible defoliation was observed, four gypsy moth larvae were found, two near the Amphitheatre at Jeremy Bay Campground, one at Peters Point, and one at Eel Weir Bridge. Six egg masses were also found, five at Peters Point and one 1.4 km southwest of Eel Weir Bridge. Intensive monitoring for this insect will continue in 1992. Visitors are encouraged to report suspected gypsy moths to Park personnel.

FROST on May 17 and 18th severely affected the flushing buds of hardwood and, to a lesser extent, softwood trees. Red oak suffered the most with severe damage on 80% of the trees. Beech damage was moderate on 20% and light on another 20%. Damage on spruce and fir buds averaged 6%. Damage at higher elevations was minimal because of late bud flush.

OAK LEAFROLLER feeding has caused severe defoliation in the Park for several

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years, leading to dieback of many oaks and, as a consequence, very few healthy trees are left in the Park. The severe frost on May 17 and 18 resulted in the food supply being greatly diminished; therefore, many larvae starved to death. The only location where significant numbers remained was at the Heber Meadows, where 20% of the foliage was damaged.

LARCH CASEBEARER takes its name from the portable shelter it creates from hollowing out a portion of the needles, lining them with silk and then chewing the section free. The larvae feed from within this portable shelter, causing foliage to turn brown soon after needle flush in the spring. In the Park, 10% of larch trees were severely affected, 20% sustained moderate, and 70% light damage.

PINE LEAF ADELGID insert their mouth parts into the sap stream of new white pine shoots, causing them to droop, turn red, and die. The adelgid requires both spruce and white pine to complete its life cycle. Damage to spruce is minimal, as the adelgids only cause galls to form on the shoots. The damage on white pine in 1991 was greatly reduced with only trace damage observed. Galls on red spruce averaged 15% at eight locations in the Park, the highest being 27% of the trees affected at Farmlands.

DROUGHT over the past year, in addition to little snowfall, caused damage to young balsam fir and spruce trees. The older needles turn yellow, then brown, and then drop off. Moderate damage was observed at various locations throughout the Park.

BALSAM TWIG APHIDS feed on the new needles and shoots of balsam fir, causing the foliage to take on a ruffled appearance. The aphids were observed at thirteen locations throughout the Park where twig damage averaged 18%, the highest being 43% at Farmlands.

WHITE PINE WEEVIL, tiny legless larvae, tunnel down the leader of white pine, causing the top whorl to wither, turn red, and assume the shape of a shepherd's crook. This insect damaged an average of 8% of the trees at several locations throughout the Park.

Other pests of interest:

PINE BARK ADELGID on white pine damaged an average of 5% of the trees from six locations; **PORCUPINE** girdled 12% of red pine trees at Rogers Brook; **ALDER FLEA BEETLE** caused severe damage to alder throughout the Park; **BIRCH SKELETONIZER** caused light damage on white and wire birch throughout the Park; **LEAFTIERS** caused moderate damage on red oak, birch, and beech at 26 locations; **EASTERN TENT CATERPILLAR, UGLYNEST CATERPILLAR**, and **FALL WEBWORM** nests were common on hardwood trees; and **LEAF BROWNING** and **SPOTTING** of largetooth aspen caused by the disease *Asteromas* sp. produced moderate damage at several locations in the Park.

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